On water service

Sampler Model SL10 B/C

MOUNTING

USE

SAMPLER MODEL SL10 B/C
USER MANUAL

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GENERAL

1.1 Introduction

The required equipment and software to make the unit function is limited to a minimum.

ISMA products conform and meet the UK MCERTS standards for continuous Water Monitoring Equipment Part 1 which is based on the ISO 5667 1,2,3 & 10.

Vacuum Samplers perform to a lifting height of 6 meters according MCERTS standards with a suction hose of 16x22 mm. To meet a lifting height of 7 meters according MCERTS standards a (non standard) suction hose of 12x19 mm will be required.

BEFORE YOU START:
Check if the equipment is transported without transport damage. In case of damage directly contact us and do not install the equipment. Read the manual before you connect the unit to a power supply. In case of illegal use or use in non-defined area's any form of warranty will be denied. The user needs to be informed about the users manual and application dangers. The equipment is tested in our factory to different quality tests before it is transported. Required maintenance or repair, which will not influence the warranty period, will have to be done by our trained specialists. All equipment returned to ISMA needs to be cleaned, sterilised and transported in a safe enclosure to avoid health-threatening situations. In case of service or repair, the equipment will not be accepted by ISMA if there is no declaration of origin and safety added to the equipment. Extra cleaning can be refused or will be charged! Warranty will be denied if there are mechanical, electronic or software changes in the unit which are not performed by ISMA.

BASIC WARRANTY PERIOD: 12 months for ISMA equipment, ex works when used correctly according specifications, based on 100 samples and 2 distributor rotations a day in non excessive conditions.

1.2 Application area

Wastewater needs to be a non-foaming effluent. Use in an explosion hazardous area is not permitted unless mentioned in the manual and printed on the equipment. Surrounding temperature of closed systems is -10°C to +40°C. We advise avoiding direct sunlight on the unit for a better performance of the integrated cooling device and to avoid extreme thermal stress on the thermoplastic door. Wastewater temperature must be between +0,1°C & 35°C (optional higher). In case of vacuum sampling any form of pressurised piping is not allowed.

BE AWARE! WRONG APPLICATION OR MISUSE CAN DAMAGE THE EQUIPMENT OR THE SURROUNDING OF THE UNIT AND IS NOT COVERED BY ANY FORM OF WARRANTY.
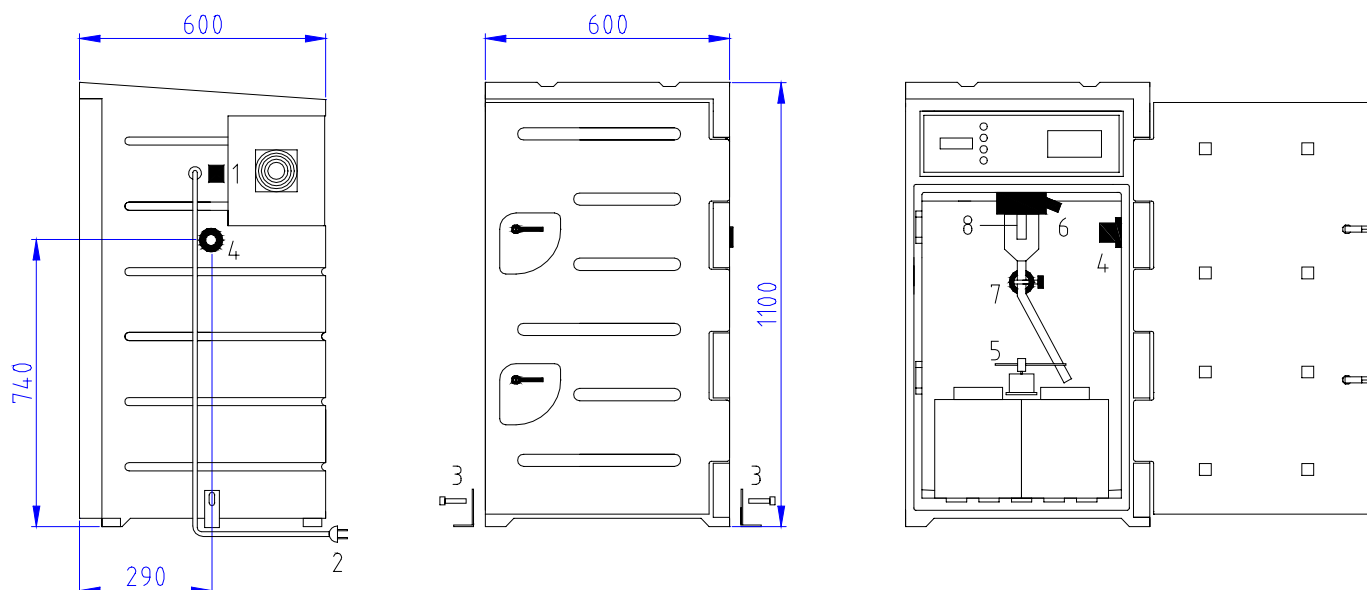
1.3 Technical specifications

Electrical:	
➢ Power supply	230V AC ±5% / 6 A / 50 Hz
➢ Power consumption	± 400 W
Sample characteristics:	**Principle Vacuum acc. ISO5667 2 & 10**
➢ Max. suction height	5 meter (optional higher)
➢ Max. suction length	25 meter
➢ Minimal suction speed	0,5 m/sec
➢ Air pump	24 VDC bi-directional ± 2800 rpm
➢ Pincher	24 VDC bi-directional P± 30 Nm
➢ Sample volume adjustable between	20 ml to 250 ml, 50 ml prefab
➢ Medium temperature	max 35°C (higher on request)
➢ Max. sample interval	1 sample per 2 minutes
➢ Diameter suction hose(inw.)	16 mm (minimal 12mm)
➢ Connection suction hose	3/4"
➢ Material sample chamber	Glass Borosilicate
Cabinet:	**Thermoplastic**
➢ Height	1100 mm ± 2%
➢ Width	600 mm ± 2%
➢ Depth	600 mm ±2%
➢ Material	Borealis LLDPE Double sided v.v. PUR foam
Surrounding conditions:	
➢ Protection class	IP 65/ Cool compartment IP23
➢ Ambient temperature	-10°C tot +30°C (lower optional)
➢ Direct sunshine	Preferred to be avoided on door
➢ Zone	Not in EX or hazardous area
Digital Controller:	**SIEMENS Micro solution**
➢ I/O	8/12* inputs, 4/8* outputs
➢ Interne real time Clock	Yes, year, month, day
➢ Automatic summer/winter time	Yes
➢ Time / pulse proportional adjustable	Yes, software adjustable
➢ Adjustable distributor	Yes, select by day (optional)
➢ Container overflow protection	Yes (optional)
➢ Output /Alarm after xx error samples	Pot. Free contact closure - default 3
➢ Input / pulse signal	100 msec Potential free contact closure
➢ Counters	Pulse total & Sample total
Operation:	
➢ Manual operation	4 push buttons: manual sample, next bottle (optional), alarm reset, reset counters
➢ Changing software settings	On DISPLAY
Cooling characteristics:	**Type:**
➢ Cooling principle	Forced by 24 VDC fan
➢ Coolant	R134A CFK
➢ Evaporator	EFCON SS 316 / V4A
➢ Compressor	BOSCH / Electrolux standard coating
➢ Cooling temper	+3°C tot +5°C acc. NEN6600-ISO 5667
➢ Defrost cycle	Automatic
➢ Heater	24VDC-25W SS (optional)
Sample containers:	**Material Polyethylene – white**
➢ Without distributor	14,9 / 20 / 25 / L
➢ With direct distributor (optional)	4x13,5 L / 24 x 1L
CE-declaration:	**Yes**

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1.4 Dimensions

1. Pulse contact & Alarm contact (input/output)	**5.** Distributor (Optional)
2. Power supply 230VAC 50 Hz	**6.** 3/4" Connection suction hose
3. Inserts for mounting brackets	**7.** Pincher
4. Inlet suction hose	**8.** Sample volume hose

1.5 Installation mechanical

The unit needs to be positioned on horizontal ground and can be mounted with the supplied accessories. (SS frame, M6 bold, Screw & Plug) Be careful with the torque on the M6 bold, the insert is capsulated in thermoplastic and may not be over stressed!

1.6 Installation instructions
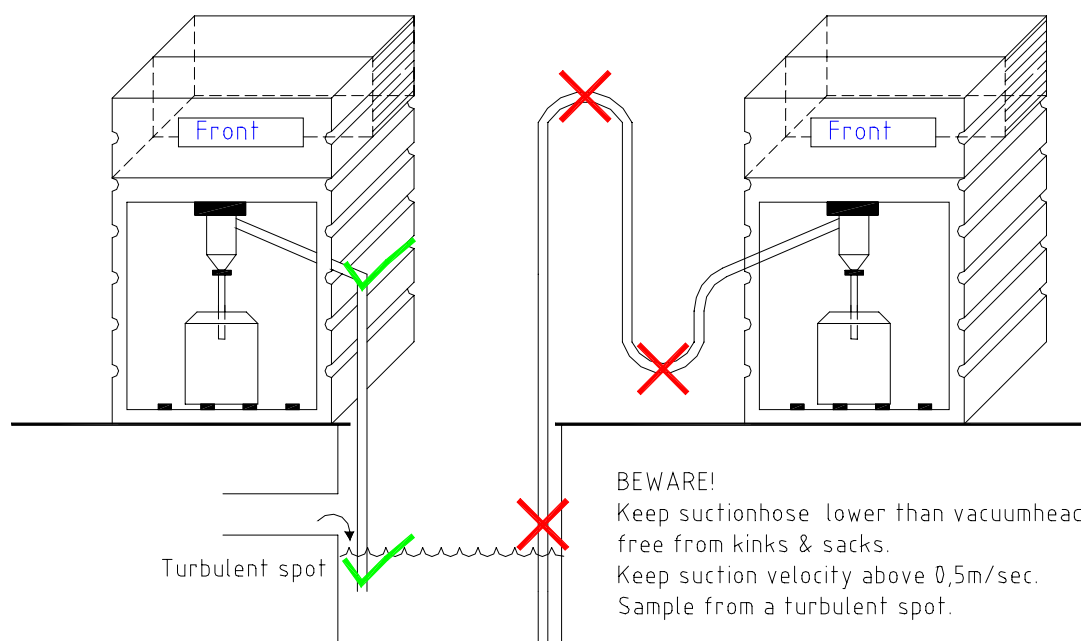
BEWARE!
Keep suctionhose lower than vacuumhead and free from kinks & sacks.
Keep suction velocity above 0,5m/sec.
Sample from a turbulent spot.

Turbulent spot

1.7 Installation electrical

Place the connectors with its cable insert downward to prevent water from entering the connector.

```
      Pulse Input                    Alarm Output                  Distributer (option)

   ⊥  GND                        ⊥  GND                        1   + 24VDC 0,1sec
   1  Pot. free contact pulse    1  Pot. free contact pulse
   2  Pot. free contact pulse    2  Pot. free contact pulse     2   GND
```

1.8 Principle of operation

The status of the sampling is shown on the display of the SIEMENS microsolution. To see the status of the vacuum sampler the covers need t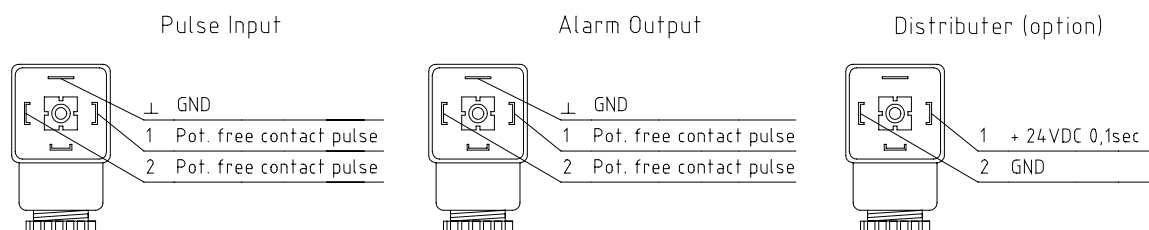o be removed (see 2.1). In normal situation the status is not visual. The operational steps of the ISMA vacuum sampler proceed as followed.

A- *CLOSING PINCHER*, the pincher closes the outlet of the vacuum sample chamber.

B- *SAMPLING PRE BLOW*, the air pump starts and generates overpressure in the sampling chamber. At the end of the suction hose the air bubbles will free the suction tube of "clocking material" to be able to take a "fresh" sample.
The PRE BLOW period will last for a **default period of 10 sec**.

```
   Purge              Suction              Dose              Drain
```
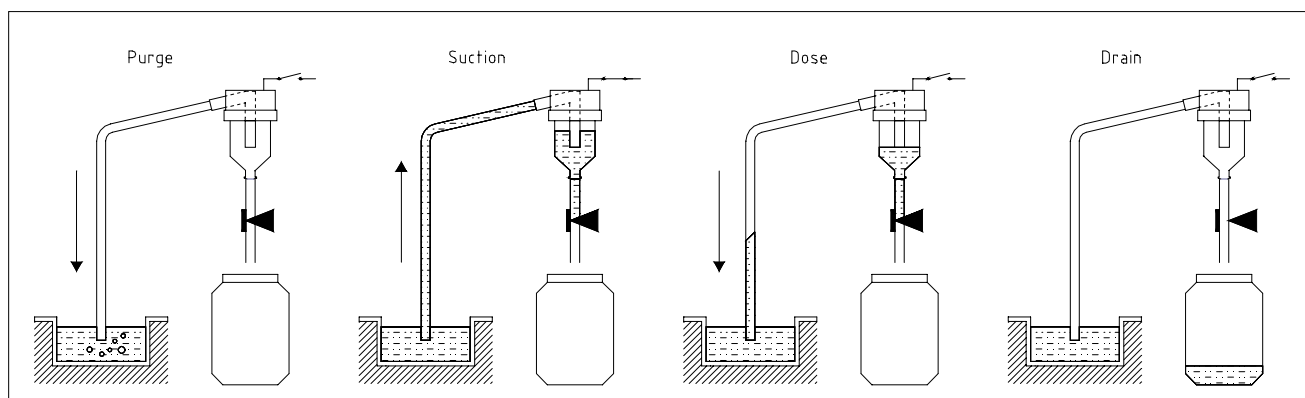
C- *TAKING SAMPLE*, the air pump changes the rotating direction and generates a vacuum in the sample chamber. The sample is lifted by suction through the inlet of the suction hose until the level sensor is activated. If the level sensor is not activated within a programmable timeout (**default 30 sec**) the sample is considered as faulty. If this happens the unit will count an error and wait for the next manual or automatic start to take a sample. After (**default setting) 3 errors** the unit gives an alarm. The unit will reset the number of sampling errors when a sample is taken within the default setting.

D- *SAMPLING AFTER BLOW*, the level switch will change the rotating direction of the vacuum pump to generate over pressure in the sample chamber and the excess volume of the sample is blown out back to the inlet where after a short period air bubbles will be shown. The blowing out of excess continues for a pre-set blow-out time (**default setting is 10 sec**).

E- *PINCHER OPEN*, the pincher will open and the sample will be blown into the sample container.
After a few seconds the air pump will stop and the sampling cycle is finished.
The sample sequence is ready. The sampler will wait for 1 minute (air pump cool-down time) before it is ready for the next automatic start.

SETTINGS

2.1 Function & possible settings
The ISMA SL 10B(C)xxx can activate the sampler on two different ways:

➢ Manual, by pushing the *Manual Sample* button
➢ Automatic , by pulse or time interval (pulse or time proportional)

2.1.1 Sample method
The unit needs different settings for TIME or PULSE proportional sampling. Standard, the unit will be set for pulse proportional sampling by a 100msec potential free contact closure.

When the time proportional setting is active, the ISMA SL 10B(C)xxx will activate the sampler at a pre set interval (default 15 minutes). To change default settings of time interval see §2.3..
If the pulse proportional setting is functioning, the ISMA SL 10B(C)xxx activates the sampler after a contact closure on. To change defaults settings of pulse interval §2.3.

2.1.2 Distributor (optional)
The distributor ensures a sample distribution to different sample containers

The distributor positions the sample hose from the sampler (clockwise) above the next sample container. The distributor works automatically or manual (by push button *next bottle* in front). The program of the distributor to act can be set for:

➢ Time (default 08:00) & days (default all days)
➢ After a pre set number of taken samples (depending on sample & container volume)
➢ Both (overflow protection)

To change the settings see §2.3. When the distributor is activated by hand the number of samples taken will be reset internally.

2.1.3 Alarm function
If a sample cycle is not completed the ISMA SL 10B(C)xxx will register a sampling error. After a number (default 3) of sampling error the unit will stop taking samples a give an alarm. The alarm is indicated by:
➢ Alarm output (Potential free contact closure)
➢ Display shows day and time when the alarm occurred.

```
    Mo 08:27
 Alarm Sample
    Failure
  Push Reset
```

By pressing the *alarm reset* button in the front of the unit the alarm condition resets.

2.1.4 Counter function (optional):
Sampler without distributor
Standard the sampler shows the number of pulses entering the pulse input on the display of the controller, also the number of samples taken are shown on this display. Press the *reset counters* button to reset these 2 counters.

```
Pulses
       244
Samples
        24
```

Sampler with distributor
When equipped with a container distributor the number of pulses and samples will be recorded each distributor action, which makes it possible to read out the pulse and sample counters from the last 3 distributor turns. To change between pulse or sample read out, push the up or down buttons on the controller. To reset the counters push the reset counters button and manual push the silicon hose bracket above container 1. When the distributor turns from container 4 to 1

```
Pul-    1
176
ses     2
120
        3
145
        4
167
```

↑ or ↓.

```
Samp- 1
17
les     2
12
        3
14
        4
16
```

Optional is a mechanical counter in front of the unit for registration of incoming pulses and/or samples.

2.2 Changing Time & Date
ATTENTION! WHEN ENTERING PROGRAM MENU, DON'T ERASE PROGRAM FROM CARTRIDGE.

1) Press **ESC** to enter program menu
2) Press ↓ until the cursor is on *Set Clock*
3) Press **OK**
4) To change default settings, press **OK**, the cursor will move to the first digit of the 2nd line (see example in scheme below).
5) Press **OK** to store changed configurations
6) Press **ESC** to return to normal display

```
      1                          2                          3                          4
┌──────────┐           ┌──────────┐           ┌──────────┐           ┌──────────┐
│ MO 10:46 │   ESC     │ >Stop    │   2× ▼    │  Stop    │    OK     │ SET CLOCK│
│ 02.20.02 │ ────────▶ │  Set Param│ ────────▶│  Set Param│ ────────▶│  MO 10:56│
│          │           │  Set Clock│          │ >Set Clock│          │ MM-DD-YY │
│          │           │  Prg Name │          │  Prg Name │          │ 02-14-02 │
└──────────┘           └──────────┘           └──────────┘           └──────────┘

      5                          6                          7
┌──────────┐           ┌──────────┐           ┌──────────┐
│ SET CLOCK│    OK     │ >Stop    │   ESC     │ MO 10:46 │
│  WE 11:56│ ────────▶ │  Set Param│ ────────▶│ 02.20.02 │
│ MM-DD-YY │           │  Set Clock│          │          │
│ 10-14-02 │           │  Prg Name │          │          │
└──────────┘           └──────────┘           └──────────┘
```
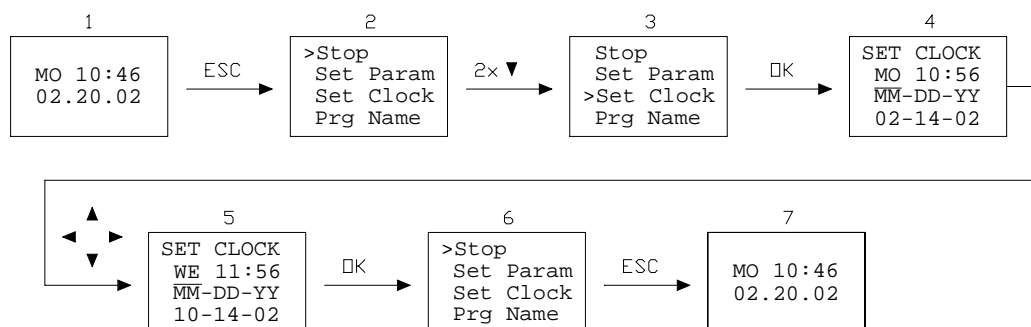
Fig 2.1 "Example"

2.3 Changing default settings

1) Press **ESC** to enter program menu
2) Press ↑ to select *Set Param* (setting parameters)
3) Press **OK** to confirm
4) In top of the display the parameter name is shown.
   The line below shows the function and its pre set value.
   On the last line of the display the actual parameter value is shown.
5) To change settings press **OK**, the cursor move to the first digit of the 2nd row (see fig 2.3).
6) Move cursor with ← or → and change digit with ↑ or ↓.
7) Press **OK** to store the data.
8) Press **ESC** to go back to program menu
9) Press **ESC** to go back

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Param. #	Function, description BEWARE	Default/display
Timer	**Time or Pulse interval sampling.** Off= Pulse proportional sampling On Time proportional sampling	Timer Switch off
p-interv	**Puls interval sampling.** Take sample after xx pulses on input On = Fill in desired pulse interval Off= Confirm interval with same number Cnt= Actual number of pulses after last sample	Pulsintv On = 10 Off= 10 Cnt= 0
t-interv	**Time interval** T = Fill in desired time interval Ta= Actual time since last sample	SEE ABOVE
turntime	**Turn time distributor**. Time distributor turns to next bottle MTWTFSS = Remove days when distributor should not turn. On = fill in desired turn time (default 8:00) Off = fill in ON-time + 1 minute (default 8:00)	Turntime MTWTFSS On = 08:00 Off= 08:01
overflow	**Distributor turn after xx samples**. For overflow protection. On = Calculate *container volume : monster volume* and fill in value minus ±5% Off= Confirm with same number Cnt= Actual number of samples in current sample container	Overflow On = 247 Off= 247 Cnt= 0
maxerror	**Max. number of error samples.** Activate alarm after xx error samples. On = Fill in desired maximum number of error samples Off= Confirm with same number Cnt= Actual number of error samples since last sample	maxerror On = 3 Off= 3 Cnt= 0
purge	**Purge timer.** T = Fill in desired purge time Ta= Actual purge time	Purge T = 10:00 s Ta= 00:00 s
suction	**Maximum suction time.** T = Fill in desired suction time Ta= Actual suction time	Suction T = 30:00 s Ta= 00:00 s
dose	**Dose timer.** T = Fill in desired dose time Ta= Actual dose time	Dose T = 10:00 s Ta= 00:00 s
Counter (optional)	**Pulse conversion for optional mechanical counter.** xx pulses on input = 1 mechanical count. On = Fill in desired number of pulses for 1 mechanical count Off= Confirm with same number Cnt= Actual number of pulses since last mechanical count	Counter On = 10 Off= 10 Cnt= 0
ST/STP	**Start & stop auto sampling on/off.** Off = Continuous sampling On = Start/Stop sampling on a programmed time & date	ST/STP Switch off
Start-D	**Start auto sampling on a specified date.** On = fill in date to start auto sampling (default 01-01) Off= fill in a day after on-date (default 01-01)	Start-d MM-DD On = 01-01 Off= 01-01
Start-T 1 **Start-T 2&3**	**Start auto sampling on given time.** MTWTFSS = don't change On = fill in desired start time Off= leave blank **(don't use)**	Start-t 1 MTWTFSS On = 08:00 Off = 00:00
Stop-D	**Stop auto sampling on a specified date.** On = fill in date to start auto sampling (default 01-01) Off= fill in a day after on-date (default 01-01)	Stop-d MM-DD On = 01-01 Off= 01-01
Stop-T 1 **Stop-T 2&3**	**Stop auto sampling on given time.** MTWTFSS = don't change On = fill in desired start time Off= leave blank **(don't use)**	Stop-t 1 MTWTFSS On = 08:00 Off = 00:00

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```
>Program..          >Edit Prg.          DON'T Erase
 PC/Card..    OK     Prg name    OK      Program!
 Clock..             Clear Prg
 Start               Password


Display when    Pul- 1  456    Stop Prg          Program..          >PC<->[=]           SET CLOCK
equiped with    ses  2  345    No          OK    >PC/Card..   OK    [=]<>Card           SU 00:00
4x13l sample         3  430    >Yes              Clock..            Card<>[=]           MM-DD-YY
containers           4  385                      Start                                  01-01-00

                ▼/▲           ▼/▲              ▼/▲                                      OK

                Sam- 1  110    Stop Prg          Program..          >Set Clock    OK    SET CLOCK
                ples 2   93    >No               PC/Card..    OK    S/W Time.           MO 10:56
                     3  121     Yes              >Clock..                               MM-DD-YY
                     4  107                       Start                                  02-14-02

                ▼/▲           OK               ▼/▲              ▼/▲

Q:0.,1.        I:0.,1.         MO 10:46     >Stop        OK    Program..          Set Clock     OK   >On
 123456789     123456789       02.20.02     Set Param         PC/Card..          >S/W Time.          Off
0123456        0123456    ESC               Set Clock         Clock..                               S/W Time:
                                            Prg Name          >Start                                ON->EU

                ▼/▲                        ▼/▲              ▼/▲

Standard display   Pulses          Stop        OK    Timer         OK    Timer               Timer
                   23946          >Set Param  ESC    Switch=Off          Switch=Off          Switch=On
                   Samples         Set Clock
                   2374            Prg Name

                              ▼/▲              ▼/▲

SET CLOCK            Stop              Pulsintv          Pulsintv            Pulsintv
SU 00:00      OK    Set Param         On =   10    OK    On =000010          On =000020
MM-DD-YY            >Set Clock         Off=   10          Off=000010          Off=000020
01-01-00            Prg Name           Cnt=000000         Cnt=000000          Cnt=000000

     ▲         OK                 ▼/▲              ▼/▲

SET CLOCK           Stop              Timeintv          Timeintv            Timeintv
MO 10:56            Set Clock         T =10:00m    OK    T =15:00m           T =10:00m
MM-DD-YY            Set Clock
02-14-02            >Prg Name          Ta=00:00m          Ta=00:00m           Ta=00:00m

                           OK                      ▼/▲

                    Program           Turntime          Turntime            Turntime
                    Name              D=MTWTFSS    OK    D=MTWTFSS           D=MTWTF--
                                      On =09:00          On =09:00           On =08:00
                                      Off=09:01          Off=09:01           Off=08:01

                                                  ▼/▲

                                      Other parameters
```

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2.4 Changing cooling settings

The cooling of the sampler is controlled by a Tar 1180 temperature controller, which is mounted in front of the cabinet. To change cooling characteristics follow below.

1) Press **P** to show parameter
2) Select parameter P24 by pressing ⇧ or ⇩
3) Press **P,** controller shows 00
4) Change with ⇧ or ⇩ to code 88
5) Press **P** and controller is unlocked

To change parameter setting:
1) Select parameter by pressing ⇧ or ⇩
2) Press **P to** show value
3) Press **⇧ or ⇩** to change value (only possible if controller is unlocked).
4) Press **P** to safe changed value.
   After a few minutes the controller will automatically locked it self.

Param	Description	Value	Setting	Parameter
P01	Actual sensor temperature	°C/°F	Display	**P01**
P02	Control setpoint	°C/°F	2	**P02**
P03	Switching differential	°C/°F	2	**P03**
P04	Setpoint high limit cooling device	°C/°F	5	**P04**
P05	Setpoint low limit device	°C/°F	2	**P05**
P06	Relay action 1 = refrigeration, 2 = Freezing, 3 = Heating	Choice	1	**P06**
P07	Display mode: 0 = °C, 1 = °F	Choice	0	**P07**
P08	Sensor correction	°C/°F	0	**P08**
P09	Defrost method 1 = Free air defrost by time interval 2 =Free air defrost by compressor runtime	Choice	1	**P09**
P10	Defrost cycle/compr. Running time till next defrost	Hours	3	**P10**
P11	Defrost (safety) time (duration)	Minutes	15	**P11**
P12	Set point alarm	°C/°F	100	**P12**
P13	Set point activating heater	°C/°F	1	**P13**
P14	Heater delay	Minutes	1	**P14**
P15	Heater conformation	Minutes	0	**P15**
P16	Minimum stop time	Minutes	2	**P16**
P17	Hours to go for next defrost event	Hours	Display	**P17**
P18	Remaining time for defrost termination by time	Minutes	Display	**P18**
P19	Remaining time for alarm being activated	Minutes	Display	**P19**
P20	Remaining time until control relay K1	Minutes	Display	**P20**
P21	Access code (key unlock) (Code = 88)	Code	88	**P21**

Manual defrost

To defrost manually hold ⇧ during 3 seconds, when temperature controller is in actual sensor temperature display. To quit manual defrost hold ⇩ for 3 seconds.

ATTENTION! DO NOT CHANGE THE VALUE OF PARAMETER P08

2.5 Changing sample volume

The length of the silicon hose in the sample chamber determines the sample volume. To change the length, turn of the power supply. Carefully turn the PP glass holder counter clock till it is loosened from the vacuum head. In necessary remove the M6 bolt inside the pincher to create more space. Determine the length of the silicon hose (renew or shorten). Longer silicon hose for less sample volume, shorter hose for more sample volume. Standard sample volume is ± 50 cc. When finished reassembly the parts and connect the power supply.
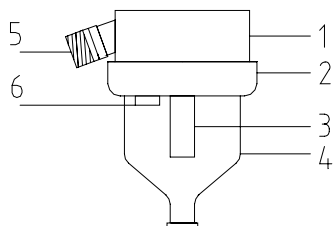
Fig. 2.3

1) Vacuum head
2) PP glass holder
3) Silicon hose
4) Sample chamber
5) ¾" connection suction hose
6) Level switch (optional)

2.6 Changing software

When software updates are needed, the program cartridge should be replaced, follow the following procedure:

1) Remove power supply
2) Remove the old program cartridge with a flathead screwdriver from the Siemens Microsolution
3) Place the new program cartridge.
4) Reconnect the power supply.

When the display shows pulses and 4 zero the program is started. If not enter the menu and start the program, check software version by selecting *prg name* (see fig. 2.2)

MAINTENANCE & SAFETY

3.1 Safety

The cabinets are manufactured in thermoplastic, which have an excellent chemical resistance against waste water's. At temperatures above 55°C the mechanical characteristics of thermoplastics will change considerably, therefore excessive temperatures have to be avoided.

GENERAL SAFETY- The ISMA SL 10 B/C*** unit is divided in 3 sections.

1) Elektra compartment, this compartment is closed by the front plate, behind this front plate are several IP 20 230 VAC connections (warning STICKER). The cool-unit is the only 230 VAC powered part of the unit. All other parts (safety reasons) are 24VDC powered.
2) Heat exchange section, a fan inside this compartment blows air through the heater exchanger, when removing the finger guard the is a danger of fingers entering the fan.
3) Refrigded section, to keep sample containers cooled between 2-4° C, inside are the sample hardware which works on 24V. The pincher below the vacuum head pinches the sample outlet hose, beware of fingers.

WARNING / CAUTION
- The pincher under the sample chamber pushes the suction hose in and can be dangerous for crushing fingers. A warning STICKER is mounted on the pincher and for servicing the pincher the power supply must be disconnected!
- Power failure can damage the product.
- After power failure the unit will restart automatically.
- If power failure happens during a sample cycle the pincher can remain closed, the unit will function after the next start.
- The rain cover also functions as a cooler fan shield, be careful for rotating parts (warning STICKER)
- All contact between human skin and waste water can be dangerous and must be avoided (warning STICKER). Wearing of personal protection during handling of samples is recommended

3.2 Maintenance
The maintenance frequency depends on use and medium. Before maintenance remove power supply. Regular clean (or replace if necessary) all parts which make contact with medium, Especially the level pins. Also check if sample spot (end of suction hose) is in a turbulent point. Clean the inside of the sampler with drinking water. Cleaning of the outside of the thermoplastic cabinet needs to be done by a wetted cloth to prevent electrostatic charging.
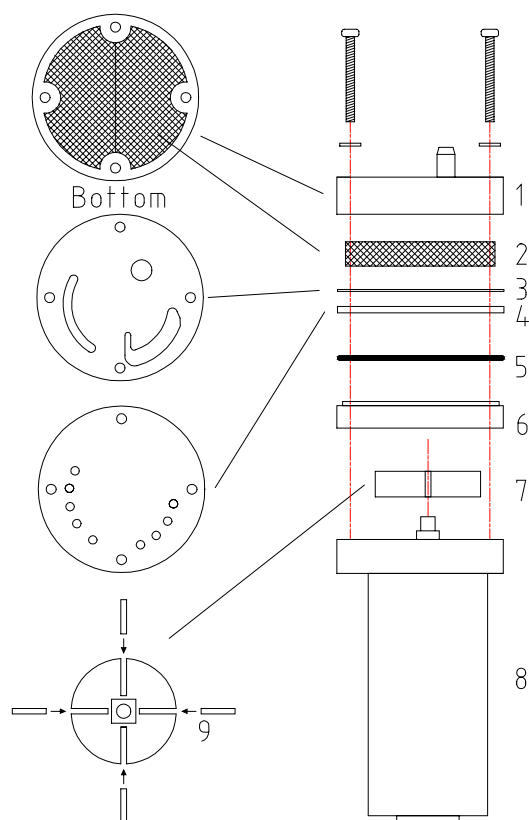

Clean the filters in the air pump when the capacity drops. To do this the pump needs do be removed from the Elektra compartment. Unscrew the 4 M4 bolts from the pump and remove the 2 filters. Cleanse the filter under drinking water and replace when completely dry. BEWARE! Reassemble the pump as shown in fig 3.0. Make sure the hose from the vacuum head is connected on the V on the pump head.

3000 rpm 24VDC air pump
1) Pump head
2) Pump filter
3) Packing/seal
4) Packing/seal
5) O-ring
6) Air chamber
7) Rotor block
8) 24V DC motor
9) Rotor Valve

Fig 3.0

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PRACTICAL PROBLEMS

4.1 Practical problems

If the unit doesn't work free of malfunctions start with cleaning all wetted parts.

Low lifting velocity of the sample, the sample enters the sample chamber too slow.
➢ Check if the connections of the suction hose and sample glass are tight.
➢ Check if the pincher functions properly, air bubbles will be visual in the sample chamber if the pincher doesn't function. *Contact us.*
➢ Check if inlet of the suction hose is fully submerged and if the suction hose is not blocked.
➢ Check if the suction height does not exceed 5 m, the suction hose can be replaced by a smaller diameter to create a higher velocity.
➢ Check if the filter or air valve in the air pump is clean.

High lifting velocity of the sample, the sample enters the sample chamber too fast.
➢ Check the total suction height, at low lifting heights the air pump has too much capacity (this is required to meet the ISSO 5667-10 specs. at normal lifting heights between 2 & 4 m). Therefore an air valve has to be mounted in the inlet of the air pump. *Contact us.*
➢ Check if the suction hose is not coming from a higher location. When the unit is not used the suction hose has to be completely empty.

No lifting sample been taken
➢ Check Pincher
➢ Check air pump, is the pump running and pumping air
➢ Check inlet of the suction hose
➢ Check relays in Electrobox

Temperature issues
➢ Ice inside the unit, check door seal, check temperature controller & sensor, check defrost setting

SPARE PARTS

5.1 Spare parts
Recommended spare parts for ISMA SL 10 B/C***:

RECOMMENDED SPARE PARTS	REFERENCE
Air pump rotor block	VS-PRB-02
24 VDC Ventilator in ISOBOX	FAN-ISO-24V
PVC Suction hose	➢ VS-PVC-21X16 ➢ VS-PVC-19x13
Connector suction hose ➢ 13mm ➢ 16mm	➢ VS-CSH-13 ➢ VS-CSH-16
Silicon hose	VS-SIL-21X15
Sample glass	VS-GLASS-02
Monster container	CON 025
Fuses	➢ FUSE 250V T5A ➢ FUSE 250V T3.15A

SPARE PARTS TO HAVE IN STOCK	REFERENCE
Pincher	VS-PIN-02B
24 VDC Air pump	VS-PUM-02
Temperature controller	TEM-ISO-TAR

6.1 CE Declaration

Declaration of conformity with EC directives

ISMA
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Manufacturer of Waste Water Sampler SL10 B/C xx

Declare under our responsibility for manufacture and supply the

ISMA type SL 1_ _ _ _ _ Serial Number _ _ _ _ _ software Version SL4 V _ _ _

To which this declaration relates, are in conformity with following directives

Electrical according NEN-EN-IEC 60204-1

Mechanical according 98/37/EG

CE Label according 93/465/EEG module A

It is not allowed to use the product for any other purposes than described in the manual.

Jean-Paul FORÊT
Manager

Original signed copy is added to the product.

Date _ _ - _ _ - _ _ _ _